

General

Title

Occupational health: annual, age-standardized mesothelioma incidence rate per million residents age 15 years or older.

Source(s)

Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists (CSTE); 2016 Mar. 145 p.

Measure Domain

Primary Measure Domain

Related Population Health Measures: Population Health State

Secondary Measure Domain

Related Population Health Measure: Environment

Brief Abstract

Description

This measure is used to assess the annual, age-standardized mesothelioma incidence rate per million residents age 15 years or older (standardized by the direct method to the Year 2000 United States [U.S.] standard population).

Rationale

State health agencies, which are vested with the legal authority to require disease reporting and collect health data, play a central role in public health surveillance. Whereas public health surveillance was once focused primarily on infectious diseases, it has expanded in recent years to include surveillance of a wide range of health outcomes and their determinants, including chronic diseases, injuries and health behaviors (Halperin & Horan, 1998). National statistics on occupational injuries and illnesses have been collected largely outside of the public health infrastructure and rely almost entirely on data reported by

employers. State health agencies that have access to a wide variety of public health data systems have an important role in the surveillance of occupational diseases, injuries and hazards.

Malignant mesothelioma, while relatively rare, is a fatal cancer largely attributable to workplace exposure to asbestos. Tracking of malignant mesothelioma should be undertaken to document the burden of occupational disease, to design, target, and evaluate the impact of prevention efforts over time, and to identify previously unrecognized settings in which workers may continue to be at risk of asbestos exposure.

Evidence for Rationale

Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists (CSTE); 2016 Mar. 145 p.

Halperin W, Horan JM. Surveillance of injuries. Public Health Rep. 1998 Sep-Oct;113(5):424-6. [PubMed](#)

Primary Health Components

Occupational illnesses; mesothelioma

Denominator Description

Midyear resident population age 15 years or older for the same calendar year

Numerator Description

Incident cases with mesothelioma (International Classification of Diseases for Oncology [ICD-O] histology codes 9050 through 9053) (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

About 3,000 deaths with malignant mesothelioma occur each year in the United States (North American Association of Central Cancer Registries, 2012). The only well-established risk factor for malignant mesothelioma is exposure to asbestos and related fibers. It has been estimated that as much as 90 percent of cases are caused by exposure to asbestos.

Evidence for Additional Information Supporting Need for the Measure

Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists (CSTE); 2016 Mar. 145 p.

North America Association of Central Cancer Registers (NAACCR). CINA+ Online: cancer in North America. [internet]. Springfield (IL): North America Association of Central Cancer Registers; 2012.

Extent of Measure Testing

In 1998, the Council of State and Territorial Epidemiologists (CSTE), in association with the National Institute for Occupational Safety and Health (NIOSH), convened the NIOSH-States Occupational Health Surveillance Work Group to make recommendations to NIOSH concerning State-based surveillance activities for the coming decade.

The Work Group recognized the need to pilot test 19 indicators to assess the feasibility of widespread implementation and to develop specific guidance on how to compute the proposed measures. In summer 2002, the five "Core" states with NIOSH Cooperative Agreements to conduct "Core Occupational Health Surveillance" (California, Massachusetts, Michigan, New York, and Washington) agreed to pilot test the indicators and to create user-friendly "how-to" guides so that other states could calculate the indicators.

Subsequent to the initial pilot testing by the five "Core" states, eight additional states (Connecticut, Maine, Nebraska, New Jersey, New Mexico, North Carolina, Oregon and Wisconsin) pilot tested the "how-to" guides. Feedback from these additional states was incorporated into the development of the final "how-to" guides for 19 indicators in November 2004.

Procedures to review, approve, and implement new indicators are developed by the Work Group. Since 2013, four new health effects indicators have been developed, pilot tested, and adopted for implementation.

Evidence for Extent of Measure Testing

Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists (CSTE); 2016 Mar. 145 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Measurement Setting

National Public Health Programs

State/Provincial Public Health Programs

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

State/Provincial

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Age greater than or equal to 15 years

Target Population Gender

Either male or female

National Framework for Public Health Quality

Public Health Aims for Quality

Health Promoting

Risk Reducing

Transparency

Vigilant

National Strategy for Quality Improvement in Health Care

National Quality Strategy Priority

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Not within an IOM Care Need

IOM Domain

Not within an IOM Domain

Data Collection for the Measure

Case Finding Period

The calendar year

Denominator Sampling Frame

Geographically defined

Denominator (Index) Event or Characteristic

Geographic Location

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Midyear resident population age 15 years or older for the same calendar year

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Incident cases with mesothelioma (International Classification of Diseases for Oncology [ICD-O] histology codes 9050 through 9053)

Note: Refer to the "How-To Guide – Indicator #12" section of the original measure documentation for instructions to calculate the annual, age-standardized mesothelioma incidence rate (cases per million residents).

Exclusions

Events with age unknown, residence out-of-state, and unknown state of residence

Numerator Search Strategy

Fixed time period or point in time

Data Source

National public health data

Registry data

State/Province public health data

Type of Health State

Adverse Health State

Instruments Used and/or Associated with the Measure

State Cancer Registry

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Does not apply to this measure (i.e., there is no pre-defined preference for the measure score)

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

Other Available Data: Age, gender, race/ethnicity, county of residence, usual occupation and industry

Recommendations: Age, gender, race/ethnicity, county counts and rates can be used to better define patterns of malignant mesothelioma. Because usual occupation and usual industry information is not necessarily indicative of the setting in which the causative exposure occurred, industry- and occupation-specific measures should be interpreted and reported with caution.

Standard of Comparison

not defined yet

Identifying Information

Original Title

12.3 Annual, age-standardized mesothelioma incidence rate (cases per million residents).

Measure Collection Name

Occupational Health Indicators

Measure Set Name

Occupational Illnesses

Submitter

Council of State and Territorial Epidemiologists - Professional Association

Developer

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

Council of State and Territorial Epidemiologists - Professional Association

Funding Source(s)

Centers for Disease Control and Prevention (CDC)–National Institute for Occupational Safety and Health (NIOSH) Award R01OH010094: Enhancing State-Based Occupational Health Surveillance Capacity

Composition of the Group that Developed the Measure

Original Work Group Members: National Institute for Occupational Safety and Health (NIOSH)–Council of State and Territorial Epidemiologists (CSTE) Occupational Health Indicators Work Group

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Robert Harrison, California Department of Health Services
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Matt London, New York State Department of Health
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Robert Roscoe, NIOSH
Diana Salzman, Texas Department of Health

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Current Occupational Health Indicator (OHI) and Work Group Leads

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Tristan Victoroff, *Co-chair* (NIOSH Representative)
Patricia Schleiff, *Co-chair* (NIOSH Representative)
Amy Patel, *Secretary* (CSTE OHI Staff Lead)
Thomas Largo, *OHI Lead* (State Representative from Michigan)

Financial Disclosures/Other Potential Conflicts of Interest

None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Mar

Measure Maintenance

Annually

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates a previous version: Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and

Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists; 2014 Mar. 116 p.

The measure developer reaffirmed the currency of this measure in January 2017.

Measure Availability

Source available from the [Council of State and Territorial Epidemiologists \(CSTE\) Web site](#)

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For more information, contact CSTE at 2872 Woodcock Boulevard, Suite 250, Atlanta, GA 30341; Phone: 770-458-3811; Fax: 770-458-8516; Web site: <https://cste.site-ym.com/> .

NQMC Status

This NQMC summary was completed by ECRI Institute on December 23, 2014. This NQMC summary was verified by the measure developer on February 5, 2015.

This NQMC summary was updated by ECRI Institute on September 17, 2015. This NQMC summary was verified by the measure developer on October 19, 2015.

The information was reaffirmed by the measure developer on January 9, 2017.

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Production

Source(s)

Council of State and Territorial Epidemiologists (CSTE), National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). Occupational health indicators: a guide for tracking occupational health conditions and their determinants. Atlanta (GA): Council of State and Territorial Epidemiologists (CSTE); 2016 Mar. 145 p.

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